

IN THE SPECIFICATION

Before line 1 of page 1, please insert the following paragraph:

--This application claims the benefit under 35 U.S.C. § 120 and 119(a) of prior filed U.S. application 09/940,449, filed August 29, 2001, the entirety of which is hereby incorporated by reference, and foreign priority of Japan application no. 259443/2000 filed August 29, 2000.--

Please replace the paragraph beginning at page 41, line 6, with the following amended paragraph:

--A two-dimensional radiation image detector according to Example 14 of the invention is described below with reference to Fig. ~~14~~17. This embodiment is characterized by the following: rectangular wavelength shifter blocks capable of shifting the wavelength of fluorescence to a different value are arranged in a planar matrix; an optical fiber bundle is provided on opposed lateral sides of the vertical arrays of rectangular wavelength shifter blocks whereas a reflector is provided on opposed lateral sides of the horizontal arrays; in addition, a radiation detecting medium that generates fluorescence upon stimulation with a radiation is provided on the top surface of each wavelength shifter block whereas optical fiber bundles are arranged on the bottom surfaces of the wavelength shifter blocks in planar matrix in a direction which is normal to the optical fiber bundles provided on the lateral sides of the vertical arrays of wavelength shifter blocks; with this structural design, the fluorescence generated from the radiation detecting mediums placed on the respective rectangular wavelength shifter blocks is processed to have a different wavelength by the wavelength shifting capability of the wavelength shifter blocks and the wavelength-converted fluorescence is detected by the optical fiber bundles provided on the lateral sides of the vertical arrays of wavelength shifter blocks and the optical fiber bundles arranged on their bottom surfaces, whereby a two-dimensional radiation image is produced.--

Please replace the paragraph beginning at page 66, line 18, with the following amended paragraph:

In the conventional method, the efficiency of simultaneous counting is increased by setting the time duration of retriggerable pulses to a value at least twice as long as the lifetime of fluorescence. Thus, compared to the case of generating pulses of constant time duration in the conventional method, the present invention permits the use of shorter pulses to increase the count rate in simultaneous counting. If the time duration of retriggerable pulses is 80 ns or more, a generator of retriggerable pulses of constant time duration can be ~~easily~~easily fabricated by using a retriggerable pulse generator device such as SN74122 or SN74123 which are commercially available TTL integrated circuit devices.